

THE CALIFORNIA MEDICAL JOURNAL.

H. T. WEBSTER, M. D. Editor.

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ORIGINAL COMMUNICATIONS.

NOTICE TO CONTRIBUTORS.—Write on one side of the paper only. Write without breaks, *i. e.*, do not begin a new sentence on a new line. When you want to begin a new line or paragraph at a given word, place before it in your MS. the Sign ¶. Words to be printed in *italics* should be underscored once, in SMALL CAPITALS twice, in LARGE CAPITALS three times. Address all communications, subscriptions, etc. to H. T. WEBSTER, M. D., Editor CALIFORNIA MEDICAL JOURNAL, OAKLAND, CALIFORNIA.

SOMETHING ABOUT SALMON.

BY A. J. HOWE, M. D.

BELIEVING that readers on the Pacific Slope would be more interested in the habits of the salmon than people who only see the red flesh in a canned state, I will offer this for your pages. I am told that salmon still venture through the Golden Gate on their way to the upper and colder waters of the Sacramento, though yearly reduced in numbers. Traffic has become so disturbing in the bay and manufacturing so polluting on the river, that a fastidious fish, like Salmonidæ in general, prefer some other route to breeding grounds.

I do not know what an infant salmon is called in California fresh waters, but in Scotland it is denominated a smolt. This information I obtain from "Log-Book of a Fisherman and Zoologist," by Frank Buckland, illustrious uncle to Doctor Buckland, of Oakland, of whom I hold pleasant memories. The tiny youngsters know nothing of the ocean where their parents have gone to regain flesh and strength, in their natural habitat. When the juvenile salmon is a year and a half old, and is quite a pan-fish, it is caught only in fresh river water, and passes under different names. In fact, the average angler does not know he is hooking young salmon, though the habits of the fish be gamey, and the

flesh succulent. The skin is of a silvery lustre, and the flesh quite white.

When the salmon approaches two years of age, it descends to the ocean, and there grows rapidly, fattens and reddens in flesh, and becomes an adult fish. In appetite it is voracious. Its mouth is set with the sharpest of teeth, and its numerous and well set fins impart quickness of motion. Trollers sometimes capture a few far out on the sea, yet the feeding grounds of ocean salmon are in bays, and not far from the shore. They may be taken there with a hook, and in nets.

I arrived at the bar of the Columbia River on the morning of July 7th; the tide was not favorable for crossing, and a dense fog enveloped the ship. After a slow cruise in deep waters for an hour or two, the automatic fog horn was heard, and it sounded like the distant whoop of a hound on a dull trail. The mournful wail was heard every two or three minutes, or as often as the rise and fall of the floating signal, which followed each undulation, took air in its descent and forced it out again as it rose. The tipsy cask moans from day to day and year to year, whether an anxiously listening mariner be there to hear it or not. Once heard, it is safely approached, for it is anchored in seventy-five feet of water. Then floating buoys are extended along for a mile or more to a point where the water is deepest on the treacherous bar. Once across the ridge where the water is ever tumultuous, the steamer slowly makes headway through a thousand fishing boats which, with two men in each, bob about like corks in an agitated eddy. We see a long line of floating bobbins attached to each boat, and inquire what is the method of taking fish. We are politely informed by an officer of the ship that sunk below the surface is a broad expanse of netting, with appertures large enough to let small salmon—twenty-five pounders—through, but which will entangle the gill-covers of larger fish. When a floating bob goes under, the agile fishermen hurry to the spot, lift the entrapped fish to the surface, and there a gaff is plunged into the cervical region; the game is then detached from entanglement, and laid in the boat. If each crew of two fishermen catch thirty salmon from early morn till noon, a day's work is done, and the laborers sail or pull up the river eight or ten miles to Astoria where the "catch" is weighed

and sold. The largest fish weigh little short of 100 pounds, while average specimens reach 50 or 60 pounds. The canners have large establishments at Astoria, and ships from various parts of the world are there in the canning season (July and August) to take the product to the great markets. About fifteen hundred fishermen tend their nets at the mouth of the Columbia just within the bar. That is the best fishing ground for salmon in any country, though the mouth of Frazer River is about as good. The flesh of the fish taken on these famous grounds is sweet and fatty, and many of the fish are very large.

About the first of July salmon leave the sea, and seek the head waters of large rivers to deposit spawn in sand and gravel, where the streams are flush with the product of melting snow. On their way up they keep out of the swiftest currents, and may be speared or netted near shore. They cannot be caught with hooks, for they never eat anything while on this spawning expedition. They come out of the sea in such plump condition that they keep in fine state till after they have deposited their eggs. While ascending rivers the females are a little the largest and fattest; but on the return trip both are so lean, soft, and flavorless that they are not worth preserving. On their way up they progress easily in the broad and deep Columbia, till they come to the Dalles or Cascades. There the gorge is so swift and pinched that many fish get bruised and killed, their bodies coming to the surface at the foot of the falls, and furnishing Indians and birds with annual feasts. Once above the Cascades they go on swimmingly till they come to cataracts higher up, such as Death's Rapids and Kettle Falls on the Columbia, and Cascades on the Snake, the Spokane, Clark's Fork, and those of other great feeders of the famous salmon breeding river. Some of the falls are so high and difficult to "leap" that the fish make many futile efforts before a successful passage is made. It is not uncommon to find fishes torn in fins and tail, and bruised about the head—wounds received in striking against the sharp edges of rocks while passing cascades. It is a strange or wonderful instinct that impels salmon to leave the ocean and swim over a thousand miles up rapidly flowing rivers to find a favorite place to deposit their eggs; but the peculiarity of this extraordinarily fruitful fish, gives man an opportunity to obtain a bountiful supply of sweet and

nutritious food. Indians know the habits of the fish, and gather about falls for weeks before the finny prey arrives in abundance, and when the first specimen is taken a grand pow-wow, or jollification, is held over the event. Then the eagle, the coyote, the wolf, and other rapacious animals get a share of the annual feast.

Almost all the large branches of the Columbia rise in great lakes, as Pend d'Oreille, and Cœur d'Alene. In these bodies of fresh water the young salmon pass the first winter. The adult fish instinctively avoid ascending a branch of the main stream that has no lake upon it.

REMINISCENCES AND EXPERIENCES.

BY SETH HART, M. D., HARMAR, OHIO.

HARMAR, Wash. Co., Ohio, Sept. 24, 1884.

H. T. WEBSTER, M. D.—*Dear Friend:* I have been reading the CALIFORNIA MEDICAL JOURNAL with much interest during the past year. I like it very much. And now, as the time has come to renew my subscription, I have thought I would give you a little outline of my experience, as it seems to accord somewhat with some cases I have read of in the JOURNAL. It will cost you nothing more than a few moments in reading, unless you see something of interest in it. In the first place, I will tell you a little about myself: I was born in Berlin, Hartford County, Connecticut, November 13, 1804, within ten miles of Hartford City, where Dea. Stephen Hart, from Scotland, came and settled in the woods. The crossing of the Connecticut River here gave it the name of Hartford. While very young I moved with my parents to the State of New York, where I received the most of my education. I read three years as the law required with reputable practitioners of medicine. I came to Ohio, September, 1824, and stopped at New Philadelphia in the morning, after having walked three miles before breakfast. With just five cents left, here among perfect strangers, something had to be done. The first thing offered was to get up a school, which I kept with great success two terms. While here the medical society of that district held their annual meeting, which gave an opportunity of presenting my credentials or certificates, showing that I had complied with the requirements of the law, which entitled me to an examination for license, as the laws

of this State were the same as New York. I was not quite twenty years old when I got my license. After settling up my matters of school-keeping in the spring, I took my carpet sack and came to Washington County. Got here on the 9th of April, 1825, and, with the assistance of a kind uncle, I pretty soon started in business; and, as it happened, we had epidemic dysentery that summer, so that my services were very much needed. On the 27th of September, I left this place and went to Fairfield, Herkimer County, New York, where I took a full course of medical lectures. From this place I went into Meredith, Delaware County, for the purpose of fulfilling an old engagement that I had made, and married a lady named Verto Curtis. Early in the spring I came back with her and settled in Watertown, this county. Here I practiced eleven years before I came to Harmar, where I am now living. While away attending lectures, my neighbor doctor had been very busy trying to destroy my character by spreading all kinds of false reports; but I soon lived them all down, and had a good practice in a circuit of fifteen miles—all woody country, and but thinly settled; would hardly go out without seeing wild turkey, flocks of deer, wolves, and once in a while a panther. I never refused a call night or day, cold or hot, rain or shine. Never refused a call because they were not able to pay the bill, consequently I have now over \$50,000 in old notes and accounts.

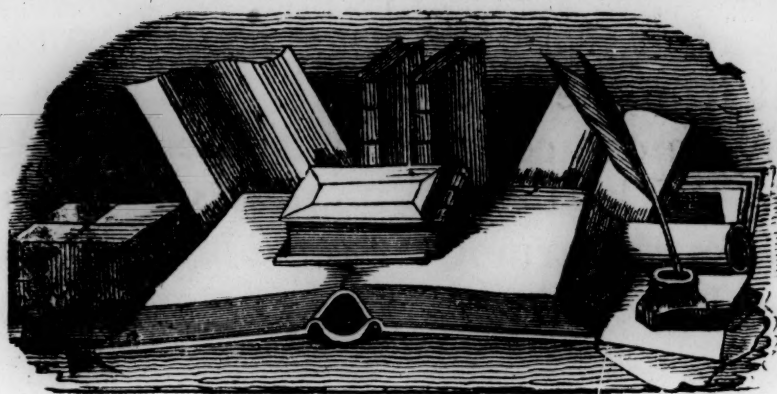
After I came to Harmar, I still kept considerable of my old practice in the country, and was getting in the way of the old pillars here so that something had to be done. In the first place there was a meeting called to regulate prices. Well, the prices and specifications were such that I said "Gentlemen, I can't go with you." "Well, if so we won't counsel with you or have anything to do with you." But for all that, I got lots of business. And I said, "I don't care how much you talk so that you will give me the business. Now it was always an object with me from the first to utilize our home remedies when they would do as well as the far-off imported medicines; and I was never afraid to use a remedy that some old lady had said was good. When I found a patient sick and in pain, it was an object to take the very shortest way possible to give relief. And doing this I have sometimes used homeopathic, sometimes allopathic, and sometimes hydropathic; so you see in this way

I got to be called eclectic, as I was in reality as far as I understood it. There was a time when I was very popular among the ladies as midwife, having attended cases that would number considerably into thousands. Then my confrères had fun among themselves in calling me granny—but I always went when I was called. Now I am not going to make a long story about what I have to say to show the inveterate hatred of the allopaths toward all others that don't exactly agree with them, but especially toward eclectics. I was once called to see a young man having typhoid fever, who was then under the care of a botanic. The disease had run one week when I came to see the patient. The botanic was very much of a gentleman, and an excellent nurse. He said to me, "I have been treating this patient for the last week, and he has been getting worse, and if something don't help him soon he is going to die. Now I know your course of doing is different from mine, so I will lay mine aside and I will act as nurse, and do everything exactly as you say." "All right," I answered. Everything went on pleasantly for seven days, when it was very evident that the patient was convalescent.

Now the botanic and the friends say, "The patient is so much better, perhaps we shall not need you any more, if we should, we will send for you." "All right," I answered. Besides paying the bill, they seemed very much pleased. This was all that I knew about the case at the time, but afterwards I learned more. Before I was sent for the uncle of the young man, who had charge of the case, had sent for three of the best physicians in the town, who came into the yard and sat on the fence till it could be known on what terms they could come in. In the first place the attending botanic should not be allowed to come into the room at all, or to have the least thing to say about anything in the case. Their terms were such that the friends of the sick man would not comply with them, so the doctors went home, and I was sent for, but my attention to the case was an unpardonable sin.

This is only one case among a great many, but enough to show the feeling that exists as a general thing among the regulars towards eclectics, and all others who happen to differ from them a little in their way of giving medicine. If one man or any number set themselves up as a standard of perfection, they have many things yet to learn. Now,

dear friend, I will tell what is a fact, when I first thought of writing something like what I have, I conceived I might say something of a little interest. But now, when I look it over, and think of it, I am disgusted with it, and have half a notion to put it in the fire. But it won't cost you much to read it, and you can consider that it is from an old man, who has fought the battles of life nearly to the end, and is ready to lay down the armor for some more able man to put on. And now I most heartily wish you success in your great work.



EDITORIAL.

Out in the Cold.—One of our exchanges stigmatizes any other course but opposition to medical legislation as “adverse, dark, malignant, and anti-eclectic.” In other words, in order to be an eclectic one must walk in the ranks and vote for General Jackson—be orthodox.

We have all the respect in the world for Professor King and also for the worthy editor of the journal referred to, but we would have little respect for self if we favored opposition to medical legislation because Professor King opposes it.

The fact is, the best of men will sometimes make mistakes on important questions. Even the Pope has been considered fallible by some daring people outside the church, so we will still, until further reasoned with, believe that general, impartial legislation will enable decent eclectics to distinguish themselves before the public from the contemptible garbage in the shape of advertising quacks, who are everlastingly appropriating the name.

As far as protecting the people is concerned we care little about that. People usually take good care of themselves, but are willing to be influenced and prejudiced by the company a man keeps. Doctor Pitzer has put this very well in the remark that if one trains with a skunk he will carry the creature's stink with him.

Let us have less getting down on a level with irresponsible, illiterate, advertising men. Let them come up to a re-

spectable standard, or let them be something besides eclectics.

The cry for freedom is all very good. We are lovers of liberty where too much is not indulged in, but it has even been necessary to create laws to prevent men from associating too intimately with dumb brutes. Liberty is a good thing when not taken in over-doses.

The man who devotes himself to hard study and conscientious endeavor to prepare himself to practice medicine successfully, is wronged when an illiterate, uneducated ignoramus sits down beside him and calls himself a physician. The freedom may be of benefit to the one, but it is a wrong to the other.

Perfect liberty wrongs no one. When any act benefits one to the injury of another, it no longer constitutes freedom, for it is injustice to one party at least.

Bad for the Thirtieth.—One of the inconsistencies of homeopathy is described by one of its teachers, a professor of microscopy in the Cleveland Homeopathic Hospital College, as follows:—

“The first effect upon the mind which is an unquestionable proof that all sugar of milk, wherever bought, contains at least enough silica, alumina, and iron, to constitute itself the sixth decennial potency of these drugs, if it has received the requisite amount of trituration, is a fact that seems stupendous when we reflect that many of the polycrests may only be prepared by trituration, while the process has been adapted to many other drugs. The matter is not benefited, apparently, by the statement placed on record by Dr. Conrad Wessethoeft, that the glass of bottles such as we use for preserving dilutions is, to a very appreciable extent, soluble both in water and in 95 per cent. alcohol. We see at once that whenever we have prescribed an attenuation of any remedy we have in reality administered two or more drugs; and, furthermore, with reference to silica, alumina, and iron, we have never given them in a potency higher than a sixth decimal, if one measure potency by dilution rather than by dynamization.”

Our Pacific Opponents and Their Vagaries.—The inevitable argument made against eclectics by their opponents on this coast as well as everywhere else, is that they are ignorant. We recollect years ago an allopathic neighbor who persisted in the same assertion, and whose prescriptions were filled at the same drug store as those of the editor. There was a remarkable sameness about these productions, and the directions almost invariably read, "Take a teaspoonful *fore* times a day." Yet he appeared the embodiment of wisdom, aped a great amount of dignity, wore the stiffest of chokers, the finest broadcloth, and the glossiest of hats.

In this connection it might be well to remind our friends that they are using text-books by eclectic authors, that they may mend the error of their ways. For several years past the old school colleges in San Francisco have been using "Mead's Chemical Primer" as a text-book in the chair of chemistry, while the homeopathic college draws its inspiration from "Lloyd's Chemistry of Medicines."

We have no fault to find with this. It is in good taste and probably the best thing we can say of them, but still the impudence of denouncing eclectics as ignorant while using text-books by eclectic teachers deserves notice.

We do not aim these remarks at our homeopathic brethren, for we know they are married to a dogma and we can excuse many things in them, but allopathy has nothing to justify such a course, though its arbitrary disposition has been to ignore any need of justification.

A Word in Season.—The time is approaching for the commencement of a new volume of the Journal. We hope to retain all our old subscribers and add many more to our list. A number have kindly aided us in increasing our circulation. We intend to appreciate these favors, and will be thankful for more of the same sort.

We hope all who desire the Journal next year will not

fail to remit promptly, so that we may know before the first of January who intends to become subscribers. Our terms are one dollar per year in advance, and hereafter we shall adhere to the practice of stopping the Journal when subscription has expired, unless special arrangements have been made to the contrary. We desire subscribers to at least inform us whether they intend to continue with us or not.

Contributions from all parts of the United States are cordially invited. While we represent the choice corner of the world, we desire to hear from every other part where eclectic physicians stay.

Straining at a Gnat.—If our allopathic friends would make their stories a little more reasonable there might be grounds for the belief that there was at least a little foundation for them. But they are so zealous to show that ignorance and “irregularity” go together that they often become blinded to reason.

The following illustrates the point:—

“A friend of the journal gives us the following: A patient came to me a few days ago who had been treated by an irregular but legal practitioner, in this city, for stricture of the urethra. The patient stated that the doctor had told him that the redness around the meatus was a sure indication of the size of the stricture and that he would remove it ‘by the roots’ by using something on the bougies, which were used daily. The patient was required to furnish the doctor with a specimen of the urine every day that he might look out for the ‘roots.’”—*Atlantic Medical and Surgical Journal*.

Further comment is unnecessary.

Castration.—The operation of castration may be made quite a formidable one where non-essential details are carried to the extreme, or it may be made one of the simplest.

A number of small arterial twigs exist in the cord which are liable to bleed profusely after being divided, yet it is a

tedious and difficult matter to take each one up and tie it separately. The majority of these may be closed by torsion, but there is a more simple plan and one fully as effective.

After making the slit in the side of the scrotum and withdrawing the testicle before severing the cord, a steel pin—a section of a common knitting needle about two inches in length answers—should be passed between the *vas deferens* and the bulk of the cord, then the cremaster muscle, spermatic veins, etc., should be bound upon it firmly with a ligature looped over them and around the pin after the figure of eight fashion.

After severing the cord with scissors, if any twigs of the spermatic artery left outside the loop are found to jet, they should be seized and twisted with a pair of dressing forceps.

A writer in the *New York Medical Times* describes an operation in which a silken thread was passed through the cord in order to prevent it from retracting, and the severed end cauterized to prevent hemorrhage. This was reported as successful in preventing loss of blood and was entirely simple though it seems a little like going back to ante-Pare times.

The pin described above may be safely removed in forty-eight hours without danger of subsequent hemorrhage, as the small calibre of the vessels admits of ready and effectual closure in that time.

The practice of suturing the scrotum after the operation is entirely wrong. Capillary hemorrhage is liable to follow the operation from its inner surface, and if the severed edges be united by sutures it forms a pocket where a firm coagulum is apt to form to afterward putrefy and cause trouble. The slit should be allowed to remain open until the air arrests the oozing and, in fact, permanently, as the sutures do not contribute to reparation in this instance, the scrotum almost entirely shrinking away on that side in a few weeks.

Animal Magnetism in Disease.—The old saying, "Fools rush in where angels fear to travel," is exemplified in many ways, but no better than in the contempt and ridicule with which many of the occult forces of nature are treated by the uninitiated.

It is so customary for people to meet that which is new or novel to them with skepticism, that many of the really valuable aids to the healing art are but slightly noticed, or, worse, ignored by the profession at large.

Years ago we scoffed at the idea of minute doses producing appreciable effect upon the human organism, but time taught us that in some cases we could not succeed unless we employed attenuated doses for the treatment of disease. This did not convert us to homeopathy by any means, for we well knew that in other instances such a plan of medication was useless. It simply made us a little more of an eclectic.

Then we saw the time that observation and experience with electricity produced a radical change in a formerly established belief, when we saw obstinate forms of disease yield like magic before its influence. We did not then become an enemy to all other aids to the restoration of health, but we added it to our not yet too complete stock of resources, and became still again a little more of an eclectic.

And so we occasionally add an effective measure to old and tried plans and means, culling a little here and a little there, making a little progress now and then, but quite confident that had we not learned a lesson of liberality since our first start we should be lacking a number of our most valuable means of resort in the treatment of disease.

Recently we have observed some fine results from the influence of animal magnetism—have seen a patient wild with pain and nervous erethism, beyond the favorable influence of hypnotics or anodynes, racked with fever and a weeks unrest, soothed to a deep sleep by the influence imparted by the hands of another person, and the patient slept the

first sleep for a week with undoubted benefit, and possibly with the effect of the salvation of life.

In this matter of animal magnetism, we have been severely skeptical—a scoffer, denouncing those benefited by it as weak minded creatures, who were capable of being blown about by every wind; but in this case the patient has a will, and a strong one, so we believe what our eyes have seen.

Animal magnetism can be cultivated it is said, and there is little doubt that this is a fact. The physician who can add it to his stock of resources, who can acquire the power of imparting it to his patients, may some time save a life where the imperative demand for sleep would otherwise prompt him to desperate measures in the use of sleep producing drugs.

The Journal of the A. M. A.—That august body, the “American Medical Association,” substantiates its dignity and importance by the publication of a medical journal. But unfortunately for perfect harmony, said journal is not above reproach, either its editor being a stranger to the rules of grammar, or careless about their application. A number of its contemporaries have complained bitterly against such an outrage, as an illiterate publication representing the leading school (in numbers) of the United States.

Faradism in Disease.—One of the common demands for the faradic current will be in the painful effections included under the heads rheumatism and neuralgia.

In rheumatism we would not expect the agent unaided to produce all the good results that its association with drugs might afford, but when properly used in connection with other agents, it is often very serviceable.

When the vapor bath is employed to arrest rheumatic attacks, it may well be supplemented by a tonic application of faradism, and this should be followed by the local use of the agent to painful parts.

In acute attacks the positive will usually be found the most effective, the negative being placed away from the painful part, but so that the current which flows from the positive may pass as directly through the part as possible. This application should be made by holding the negative firmly against the selected position while the positive is gently stroked over the seat of pain in a direction corresponding to the course of the muscular fibres underneath. The effect of stroking a muscle crosswise is active contraction and consequent aggravation of pain.

Many cases of obstinate pleurodynia—rheumatic affections of the intercostal muscles, may be speedily cured by the use of the faradic current. Place the negative against the thorax opposite the seat of pain, and apply the positive for ten minutes, repeating the treatment every day or two for a week if necessary—old cases long established may require something more stimulating, or the negative may be required in the start, while the positive is used to finish the treatment. In all cases where the positive fails after a fair trial, we would advise the use of the negative for a time until the part has taken on more activity.

Sciatica should be treated by having the foot of the affected extremity on the negative while the origin and entire length of the sciatic nerve is faradized over its course with the positive. We have cured severe and long standing cases of this kind by persevering in the use of vapor baths and faradism.

In treating rheumatic joints, place the poles on opposite sides of the part, the positive being placed upon the most painful portion, though their positions should be changed several times during the seance. After this the positive may be placed above, the negative below, and the current allowed to traverse the limb.

Mrs. Webb Prostrated.—Those of our readers who are personally acquainted with the college will be pained to learn that Dr. Jennie P. Webb is prostrated with typhoid fever.

At this writing she is past the second week and somewhat improved, though she has suffered intensely thus far. Prospects now, however, are favorable for an early convalescence.

Mrs. Webb's identification with the college through her deceased husband, one of its principal projectors, and her loyalty and earnest efforts in its behalf since its beginning, endear her to all the friends of the institution. Many in this vicinity have manifested a kind solicitude in this, her hour of trial.

Vesical Tenesmus.—We have occasionally encountered persistent and desperate cases of vesical tenesmus, where the administration of ordinary agents amounted to nothing for relief.

A few years ago a woman about the climacteric passed successively from one to another physician, suffering with these symptoms for weeks, the tenesmus amounting to almost as severe forcing as labor pains, and nothing afforded relief. The writer was one among the number who ignominiously failed and suffered dismissal.

Recently we have encountered one of these cases, and after much tribulation have been enabled to control it with the local application of a folded napkin saturated with four parts sulphuric ether to one of chloroform laid over the pubes and covered with a folded flannel cloth wrung out of warm water. In a few days the symptom thus held in abeyance disappeared.

SUISUN, Solano Co., Cal., Oct. 18, 1884.

EDITOR CALIFORNIA MEDICAL JOURNAL—*Dear Sir:* We beg leave to draw both your attention, and that of the eclectic physicians and surgeons in the State of California, to the following facts, which we do not think have

been already noticed, to wit: The outside cover of the "Official Register of Physicians and Surgeons in the State of California" purports to be issued by authority of the Board of Examiners of the Medical Society of the State of California, R. H. Plummer, M. D., Recording Secretary. The middle part of the cover bears a *fac simile* of the above "Board's" seal. Is this not a little one-sided, Mr. Editor? Now, please contrast the wording of page 1, on the inside of the cover, which reads thus: "Catalogue of Physicians and Surgeons who have received certificates from the Boards of Examiners of the Medical Societies of the State of California, authorizing them to practice medicine and surgery in said State, etc., by authority of the Board of Examiners (not Boards), R. H. Plummer, M. D., Recording Secretary." On reading the above (that mentioned on page 1), the words "Boards" and "Medical Societies" are used, clearly indicating a plurality of boards and medical societies, to wit: the Allopathic, Eclectic, and Homeopathic. Page 2 contains a list of "Members of the First Board of Examiners of the Medical Society of the State of California," also a list of their Seventh Board, but no corresponding lists of either the Eclectic or Homeopathic Boards of Examiners. Is this not also a one-sided affair, Mr. Editor? Please also note how page 11 is headed by the Allopaths for contrast with the headings for the Eclectics and Homeopaths. It reads thus: "Official Catalogue of Physicians and Surgeons licensed by the Board of Examiners of the Medical Society of the State of California," while on page 42 the heading for the Homeopaths simply reads, "Homeopathic Physicians." Now, lastly, for the Eclectic heading, which on page 47 reads, "Eclectic Physicians" (and Surgeons being specially ignored). As a new register will be issued January 1, 1885, would it not be better for the Examiners of the Eclectic Medical Society to look into this, seeing that the other Boards are entitled to equal representation and prominence in this matter, which is already by far too one-sided. Our worthy Secretary, Professor Gere, we have no doubt would receive hearty co-operation and the support of his colleagues. It is only but right and reasonable that the other two Boards concerned in the making up of the 1885 issue should have the same prominence given them as their Allopathic brethren. As the present catalogue stands, from outside appearances alone, any one

would naturally suppose that it was issued by the Allopathic Board, by their authority, and that Dr. Plummer alone is recording secretary. As others may have their views to express, or perhaps other suggestions to make, we would be glad to have an expression of opinion through the Journal. As the year will soon be ended and another catalogue issued, it would be well if any action is taken that it should be done soon.

W. C. HARDING, C. M., M. D.
P. BIRNIE WILSON, C. M., M. D.

SUISUN, Solano Co., Cal., Oct. 18, 1884.

EDITOR CALIFORNIA MEDICAL JOURNAL—*Sir*: There are degrees and degrees, but their end has not yet come. Here are two specimens which have both puzzled myself and other medical friends to unravel, so we give it up, and ask for light on the subject. In an advertisement on his envelopes, a certain M. D. (who shall be nameless), both an editor and dealer in surgical instruments, and what not, uses the letters "M. S." On his patient's bills he uses the letters "S. M." What do these letters mean? Some think they mean "maker of surgical instruments;" others think it is an attempt to anglicize the words *chirurgiae magister*. Surely, sir, any M. D. in this, or any other country, cannot think that "M. S." or "S. M." represents the degree of master of surgery, for if that be so, then the United States medical man has very much degenerated of late in his knowledge of Latin. Why, sir, the merest tyro who has a smattering of Latin would know better. If "S. M., M. S.," are not intended for master of surgery, it would be interesting to know what they represent. As there are some bets on the result of your decision, we await the elucidation of the mystery through the Journal.

Very respectfully,

P. B. WILSON, M. D.

We give it up.—ED.]

NOTES.

R. W. MUSGRAVE, M. D., recently called upon the Journal. He reports a fine practice since his location at Hartford in May last.

PROFESSOR GROSS never operated on menstruating women, if it was possible to avoid it. Oozing is apt to occur from the wound.

"THE URINE IN DISEASE" is the title to a chart of urinary analysis published and furnished by the *Medical World* gratis to every subscriber. Address 401 South Eighth Street, Philadelphia.

DR. JUDKINS recommends for the distressing and obstinate trouble, hay asthma, syrup hydriodic acid (Gardner's), a teaspoonful every hour or two until relieved; or from three to five drops of the acid on a lump of sugar at the same intervals. This, in connection with mustard leaves at the wrist joints during the attack, he claims, acts with almost magical effect.

SOME of our readers have expressed skepticism regarding the cures reported by Dr. F. W. Johnson, in the October number, with electricity. We had also labored under the impression that his diagnosis must have been a little faulty, for we have observed the action of faradism for a number of years, and do not believe it possesses any power for the removal of new formations. Possibly the fibroid tumor was a "phantom" tumor.

I HAVE discovered in Jamaica dogwood an excellent application for burns from hot steam or boiling water. My mode of application is to saturate a cloth with the fluid extract and bind it loosely on the burnt parts. Keep moist by frequent applications. The "fire" will be found to be out in a few hours. Old linen makes the best bandage.—*S. Shepherd, M. D., in Therapeutic Gazette.*

DR. GARLAND in the *British Medical Journal* details a case of chloroform narcosis where artificial respiration and the inhalation of ammonia failing to restore, the patient was suspended by the legs with the head downward with the result of a return of color to the lips and radial pulse in a few seconds. The patient then being restored to the recumbent position, artificial respiration was resumed, and the patient was made to swallow some brandy and

inhale strong ammonia, but the pulse and respiration soon ceased again. The patient was again suspended as before, the head being allowed to rest upon the bed, and thus for three successive periods; this position restored the circulation after the failure of other means. The third time was sufficient to accomplish the restoration of the patient with the aid of electricity and inhalations of ammonia.

SINCE Marchand made his observations Edlefsen (*Centralblatt f. Klin. Med.*) also experimented with chlorate of potash upon blood withdrawn from the body, and extended his research to the determination of the action of the salt upon blood in circulation. E. finds that if the blood is kept abundantly supplied with oxygen, *i. e.*, if there is no respiratory interference, then the change of the hemoglobin into methemoglobin is slow. That is to say, the poisonous influence of the salt is not so great if a complete decarbonization of the blood is possible. This makes it very evident how dangerous the exhibition of the salt proves to be in conditions of cyanosis, laryngeal stenosis, etc.

THE undersigned proposes to publish during the coming year a large volume entitled "Encyclopedia or Medical Wit, Humor and Curiosities of Medicine."

In this undertaking he respectfully solicits the kindly aid of the profession. Witticisms and anecdotes of a humorous or curious nature are solicited. There are numberless unpublished experiences that would prove a source of amusement and instruction, and all physicians, druggists, dentists, and others supplying original contributions will receive due credit in the work.

Information regarding suitable literature—home and foreign, ancient and modern—will be gladly received, and highly appreciated. The author is especially anxious to avail himself of every source, and would highly appreciate all information concerning publications likely to be useful for reference.

All letters, contributions, clippings, books and other matter should be addressed to

JULIUS WISE, M. D.,
806 Olive Street, St. Louis, Mo.

BOOK NOTICE.

MEDICAL RECORD VISITING LIST.

We are in receipt of William Wood & Co.'s "Medical Record Visiting List" for 1885. It is in every way the best visiting list we have seen from any source, besides excelling all others in quality of material and style. The encyclopedia of valuable information for emergencies is also worthy of note; Almanac for 1884 and '85, Table for Estimating the Probable Duration of Pregnancy, Approximate Equivalents of Small Weights, Doses of Drugs by Subcutaneous Injection, Doses of Common and Rare Drugs, Drugs Suited for Atomization and Inhalation, Disinfectants, the Urine in Health and Disease, Table of Poisons and Their Antidotes, Treatment of Asphyxia from Various Causes, etc. We advise our readers to order this list at once, so that they may begin the New Year's accounts in good style. Wm. Wood & Co., 56 and 58 Lafayette Place, New York, or Bancroft & Co., San Francisco.

THE PHYSICIAN'S VISITING LIST FOR 1885. P. Blakinston, Son & Co., Philadelphia.

This list is well known to the profession, it being the thirty-fourth year of its publication. This issue comes up to the excellent standard of former years. It is well executed mechanically, and contains calendars for 1885 and 1886 to July, Marshall Hall's Ready Method in Asphyxia, Poisons and Antidotes, Metric or French Decimal System of Weights and Measures, Dose Table, Table for Calculating the Period of Utero-gestation, a List of the Most Important New Remedies, and Sylvester's Method for Producing Artificial respiration. With such companions as this in one's pocket he is not only prepared to keep close account of a large practice, but for ready reference in many emergencies which are liable to arise. Now is the time to order.

SELECTIONS.

PLACENTA PRÆVIA—A NEW METHOD OF PREVENTING HEMORRHAGE THEREFROM.

[Continued from September number.]

CONCLUDING to employ an aggressive as well as a defensive treatment, so soon as circumstances indicated the best mode of procedure, I determined, notwithstanding the undilated and apparently undilatable condition of the os to administer ergot as an oxytocic, and accordingly gave a drachm of the fluid extract.

While directing the details of some general arrangements, and some twenty or thirty minutes after my arrival, another gush of blood occurred. During this the patient exclaimed, "I am dying," and immediately nearly fainted. The indications plainly were, that interference could no longer be delayed; the situation was already alarming. I ordered stimulants given and the foot of the bed elevated. Dilatation of the os by force, turning and speedy delivery, or the temporizing, and, to my mind, unscientific, tampon, were the only alternatives recognized by the authorities. I was averse to both of these, although it was clear to my mind that something would have to be done immediately, for if another considerable hemorrhage should occur, the scene would close with the death of my patient.

At this juncture the thought flashed into my mind, that if I could keep the uterus firmly and continuously engaged in the brim of the pelvis, by pressure over the fundus, and by counter-pressure against the margin of the os, I could control the loss of blood. Therefore, with the fingers of my right hand against the margin of the os, and my left hand and forearm embracing the fundus, I commenced to "hold the fort;" and, as I was without competent assistance, and my new theory had not yet been put to the test, I sent for my friend and neighbor, Dr. W. H. Poole. While the messenger was absent, I directed an attendant to administer milk punch and another teaspoonful of fluid extract of ergot. The milk and whisky seemed to have the desired effect of reviving the patient. She rallied well, and labor pains soon grew strong. After a time I succeeded in rupturing the membranes with my finger nail; the rupture was followed by a slight discharge of amniotic fluid.

No hemorrhage occurred after the pressure was applied to the fundus, and it was maintained continuously, either by myself or an attendant, the patient bearing it without complaint or inconvenience.

My interest in observing the progress of labor in this case was quite unusual. The combined influence of ergot and the expressive massage did not unduly augment the uterine action. I soon discovered that pressure against the margins of the os was quite unnecessary, and, in lieu thereof, I used my best endeavors in aiding its dilatation with my fingers. When Dr. Poole arrived, labor was progressing after the most approved manner, and from this time forward was entirely uneventful, save that it was somewhat tardy, because of the unyielding condition of the os in the early stages. The child was born alive but not lively, about 5 o'clock the same morning. Pressure was continued over the uterus until after the secundines were expelled, and a well fitting bandage was applied.

The child survived only about an hour. The mother made a speedy and perfect recovery, and is enjoying most excellent health at the present time.

Rationale—I am not unmindful that theories are sometimes delusive, but a careful study of the physiological phenomena of parturition leads me to believe that when rightly apprehended they will afford the explanation to the successful means of controlling hemorrhage in almost and possibly all, cases of placenta prævia, occurring at or near the full term of gestation, which is the time of greatest danger. The questions principally involved in my theory of the control of hemorrhage in placenta prævia, have reference to the antagonizing forces hindering the dilatation of the os-uteri when labor is or should be commenced, and the *modus operandi* of overcoming the same.

The inception of parturition would seem to be always more or less of the nature of a surprise to the uterus, disturbing the apparent security gained by months of elaborate strengthening of its cervical walls for the support and protecting its accumulating treasure. But, like all other functions of the body, that of parturition is usually performed by nature's ordained method, without the accoucheur's aid and in defiance of all antagonizing forces. The stubborn resistance to the expulsion of the contents of the uterus, observed by all practitioners of midwifery, in the early

stages of labor, is frequently little less than phenomenal. Were it not for the rebellious muscular tissues investing the cervix uteri, labor would be discounted of the pain, agony, and dread which it occasions in the woman, to say nothing of the vast gain of time, in the aggregate, to the accoucheur, the importance of which needs no mention.

Synchronous with each systole in labor, there is a descending movement of the uterus, bringing and maintaining it during the pain, in contact with the maternal pelvis. This is followed by a resilient movement, synchronous with the uterine diastole. The resilience is not merely the measure of resistance of the cervical and other muscular tissues, effected by the systole, but is also the gauge of the diastole, and the dual phenomena, though only possibly a source of delay and suffering to the patient in labor, with normal attachments of the placenta, *if not restrained or counteracted become the agencies of fatality in placenta prævia*. This is because the blood escapes from torn vessels, due to contraction of the uterus in that portion to which the placenta is attached, only when that contraction ceases. Dr. Charpenter, in the Archives de Tocologie, 1875, says, "The hemorrhage in placenta prævia takes place during the diastole, but is expelled during the systole, *and if the latter were continuous it could hardly take place at all.*" I italicize the last words of this quotation, because it is the lock into which my key fits.

Resilience is overcome, the diastole counteracted, and continuous systole simulated, by the application of supra-fundal pressure. The force should be sufficient to maintain the cervical portion of the uterus in continuous contact with the superior strait of the maternal pelvis. This, incidentally, is important, as an external compress around the cervix; but the more important effect of the pressure from above, is to force the contents of the uterus into its cervical and dependent portion. The brim of the pelvis being a fixed external resistance, impinging at a point corresponding with the plane of the internal os, would make farther descent of the uterus impossible. Hence, in obedience to dynamic laws, compression of the fundus must cause a corresponding expression of the cervix and os. The logical effect of such change of force would be to facilitate the speedy expulsion of the uterine contents.

The advantages of a persistent expanding force, for the

dilatation of the natural canals and passages of the soft parts of the body, are well understood. How quickly, for instance, are the sphincter muscles overcome by the application of unintermitting opposing force. So, also, supra-pressure of the uterus, when persistent, forces the contents to perform their exclusive agency in the parturient mechanism, namely, the expansion of the passage for their escape. Sometimes in placenta prævia, the contractions of the uterine and abdominal muscles are so powerful as quickly to engage, unaided, the presenting parts in the passage, whereby they speedily dilate the os and also thereby act as a tourniquet, closing the open mouth of the bleeding vessels and so controlling the hemorrhage.

In conclusion, the efficacy of the method which I submit for the control of hemorrhage in placenta prævia, rests on the possibility and safety of applying sufficient supra-pressure to the fundus to cause the more dependent contents of the uterus to compress the mouths of torn utero-placental vessels, to the extent of preventing the escape of blood. The tourniquet controls the current of blood in the large arteries, not excepting the abdominal aorta. To me the method which I have suggested for controlling the hemorrhage of placenta prævia, seems scarcely less reasonable than the application of the tourniquet, while my single, apparently fair, test case, strengthens the conviction that it is practicable. It certainly looks feasible, being in harmony with the laws and natural forces controlling the mechanism of parturition. Placenta prævia is abnormal, and nature unaided by the accoucheur's skill is unable to tide over the breakers. It devolves on us in the perilous emergency, to so direct the natural forces that they shall bear the frail bark past the shoals and rocks and into the quiet haven. For this are we doctors.—*The Medical Age*.

SOME POINTS ON THE USE OF HEAT AND COLD IN THERAPEUTICS.

BY JAMES B. HUNTER, M. D.

I AM well aware that the subject of the application of heat and cold in therapeutics is a very large and comprehensive one, and I shall attempt no more than to present a few points which have been suggested by my own experience.

The use of heat and cold, in some form, for the relief of disease is almost universal. There is hardly a disease known in which, at some stage, it is not deemed necessary to interfere with or modify the existing thermal conditions, the interference varying between the use of the actual cautery on the one hand and of ice or freezing mixtures on the other. Between these extremes the ways and means of modifying temperature are very numerous. The necessity for some interference is taken for granted. Some of the most advanced professional minds have for centuries past grappled with the problem of temperature as modified in disease—while every household has its favorite theories and maxims concerning the treatment of diseases and injuries by means involving a change of temperature.

Yet, notwithstanding the antiquity of what may be called the thermal method of treating disease, and its almost universal application in some form, there exists a surprising difference of opinion concerning the use of heat and cold, especially as to which of these powerful agents should be employed in any given case.

Professional opinion is assuming greater uniformity on this point with the advance of physiological science; but popular opinion, which often reflects the professional opinion of a former generation, differs very widely. But whether heat or cold is preferred, public opinion is always in favor of the generous use of one or the other. A gentleman of my acquaintance who was spending some weeks in a country region, chanced to sprain his ankle. He was carried helpless to the nearest farm-house, where he was prescribed for by two experienced matrons. One insisted on placing the limb under a stream of cold water from the pump, and keeping it there for half an hour, assuring him that he would be able to walk the next day if her advice were followed. The other advised placing the injured limb in a pail of water nearly boiling hot, and keeping it *there* for half an hour, promising the same result on the morrow. Meanwhile a boy was dispatched to the nearest village for medical aid. The doctor sent for was not at home, but his assistant visited the patient promptly, and indorsed the prescription of cold water, which was thoroughly carried out. On his return in the evening, the senior physician, thinking the patient a gentleman of some consequence, hastened to see him, examined the ankle carefully, and advised that very *hot* water should be applied during the whole night.

A similar difference of opinion is common both in the profession and out of it. Whether it be a sprained ankle, an inflamed knee-joint, a bruise, a wound, a burn, a fever, there is often a radical difference of opinion as to whether heat or cold will give the greatest relief or accomplish the most good. The explanation of this difference of opinion is probably to be found in the fact that many diseases and injuries require at different stages the use of both heat and cold, and that the indications for the use of either one are not always clear. In the earliest stages of inflammation the prompt abstraction of heat often suffices to abort or control the inflammatory process. After inflammatory changes have taken place, the application of heat to the same part may, by stimulating capillary and lymphatic action, hasten absorption and be eminently proper. In some cases this explanation does not apply, as in the use of both hot and cold water for the arrest of hemorrhage, or of hot and cold applications for the relief of neuralgia, regarding which there still exists some difference of opinion. It is safe to say that in no given case is it a matter of indifference whether heat is added or subtracted. The same difference of opinion exists, however, as to the use of some medicinal agents quite opposite in their effects.

But I must necessarily pass over or allude very briefly to many points which suggest themselves in connection with this subject.

1. I will first consider briefly some of the diseases in which the abstraction of heat, generally or locally, is demanded.

Typhoid fever, perhaps better than any other disease, illustrates the good effect of antipyretic treatment. Dr. G. L. Peabody, in a valuable statistical paper read before the County Medical Association, March 17, 1884, on the treatment of typhoid fever, says: "The effect of high temperature is very deleterious upon normal tissues, and its influence is distinctly evil in reference to the possible healing of intestinal ulcers." As the result of his own experience, and a careful examination of the records of the treatment of typhoid fever in seventeen large hospitals, in this city and in Europe, those of the British army and navy, and of our own army, Dr. Peabody emphatically indorses the use of cold water in the treatment of that disease. He shows the mortality to be only seven and one-fourth per cent. in a series of over eight thousand cases; and a series of two hundred

and eleven cases in Dr. Brand's private practice all recovered under the antipyretic treatment. Dr. Peabody laments the difficulty of introducing the practice generally, the necessary appliances being cumbersome and expensive. The affusion of cold water he has not found satisfactory; the cold coil he considers unsuitable; and the cold bath the only really efficient method. Now, a cold bath in the immediate proximity of a patient sick with typhoid fever is not often obtainable. The patient may be sick in a country house, where bath-tubs are unknown; in a hotel where they are fixed and remote from the patient's room. Even in a private house with all modern appliances, it is not an easy matter to transfer a patient from a sick-bed to a bath-tub and back several times a day without a good deal of disturbance to the patient, and an abundance of physical help. I would therefore suggest as equally efficient and far more practicable, the use of the well-known, but somewhat neglected Kibbee fever-cot, or something equivalent to it. This cot, which was first devised and used by Dr. Kibbee for the treatment of scarlet fever, during a severe epidemic of that disease, consists essentially of a common cot or frame on which is stretched strong canvas or other material sufficiently coarse or open to permit water to pass through it. Under this is placed a rubber sheet, to catch and convey the water to a pail placed at the foot of the bed. The patient lies comfortably on this bed, on a blanket and sheet, but of course without mattress. Such a bed can be improvised almost anywhere at a very small expense. I once made a very efficient one, in the country, with an old coffee bag; and I once used an ordinary wire mattress. Any cot covered with canvas may be made available as a water-cot by cutting a sufficient number of holes in the canvas. When it is necessary to apply the cold water, the covering of the patient is removed from the body (not from the extremities), which is enveloped in or covered by a sheet; upon this sheet warm or tepid water is poured gently from a pitcher or watering-pot; the temperature of the water is then gradually reduced until it is sufficiently cold. The stream is kept up for ten or fifteen minutes, a dry blanket is then thrown over the patient, and sleep generally follows.

Having had considerable experience in the use of this method of reducing the temperature in cases of peritonitis and septicæmia following operations, and some experience

with it in typhoid fever, I know it to be very easily managed, to come within the skill of any intelligent nurse or attendant; and that by its means the temperature can be reduced to any desired point and maintained there. The apparatus is simple, it requires but a small quantity of water, it involves no movement of the patient, and occasions no shock whatever. I therefore believe it to be the best means available in all cases of fever where artificial reduction of the temperature is desirable. This method was adopted very successfully by Dr. Thomas, for peritonitis following ovariectomy, in 1876.

Next in point of efficiency, for the same purpose, I would class the wet pack, by which I mean a folded sheet, wrung out of tepid or cool water, and wrapped quickly around the patient's body. In this case cooling takes place partly as a result of evaporation. If the attendants are industrious, much may be accomplished by the use of towels wrung out of cold water placed upon the body and limbs, and frequently changed. Least useful of all, though very grateful to the patient, is sponging with cold water. If done often enough some heat is abstracted, and if alcohol is used with the water evaporation aids in cooling.

Where it is necessary to effect a local reduction of temperature, there are better means than the fever-cot. In threatening peritonitis after laparotomy, for instance, the use of a coil of lead or rubber tubing, through which water of any temperature may be continuously passed, affords a perfectly simple and efficient means of accomplishing the purpose desired.

M. Galante, of Paris, in 1852, devised a rubber apparatus for continuous irrigation of the eye. Dr. Petitgand, of Paris, had manufactured for him an apparatus of rubber tubing for this purpose in 1859; and in 1866 he published a description of a head-cap made of rubber tubing for the use of cold water, and a *sachet*, a flat coil of rubber tubing precisely similar to the abdominal coil now in use. In 1879, Dr. Dumontpallier published a description of a series of tubular covers and mattresses, by the use of which, according to experiment, he claimed to be able to accomplish much more rapid and uniform refrigeration in typhoid, varioloid, and other fevers, than could be accomplished by the cold baths of Brand.

The use of the head coil of lead or rubber is now very

general; and the abdominal coil is likewise becoming popular. Nothing can be simpler or less disturbing to the patient than the use of the abdominal coil, and in incipient peritonitis nothing that I am aware of is so efficient. The application of the rubber coil to this particular class of cases was suggested by Dr. A. B. Townsend, in the Woman's Hospital, in 1881. The coil is applied directly to the skin, or a thin towel is interposed. A bandage is then placed around the body to keep the coil in place; a pail of water, containing a lump of ice, stands on a table near the head of the bed, and a pail under the bed receives the water as it passes through. At the latter extremity, where the water escapes, there is a stop-cock by which the flow may be nicely regulated or entirely stopped, as may be rendered necessary by the temperature of the patient, as shown by a thermometer placed in the axilla from time to time. Unless the apparatus should be irksome to the patient, which is seldom the case, it is not necessary to remove it as long as there is any likelihood that it may be required. By simply opening the stop-cock the flow of water begins, and the cooling process may be stopped or resumed without waking a sleeping patient.

I have used in the manner just described both the rubber coil and the coil of fine leaden tube known as Leiter's coil. The latter have not been generally in the market, or I think they would have taken the place of the rubber in many cases. They are not so heavy, when full of water, as the rubber coil; they are not liable to become dirty, and have not the unpleasant odor of rubber. They are more durable and less expensive. They are not more liable to become clogged with dirt, if the precaution is taken to envelope the receiving end of the tube in a piece of gauze or coarse muslin, which should be done in all cases. With this precaution, and one nurse of ordinary intelligence, I have sometimes kept the leaden apparatus in use for three days and nights without a moment's interruption. One advantage of the metal coil is that it requires less water, and that it is seldom necessary to use ice. Being a much better conductor than the rubber, the use of water at a temperature of 45° or 50° is quite sufficient. I consider these appliances of the greatest possible value where inflammation is threatened, and most important means of limiting inflammation when it has developed. In case of bad operations, where there is

every reason to expect peritonitis, I have the coil placed upon the patient immediately after she is put to bed, so that it may be ready for use at any moment. In ordinary cases I wait until the temperature rises above 100° in the axilla.

In the method spoken of the object of course is to reduce bodily temperature; but cold is sometimes used as a means of impressing the nervous system. Chapman's ice-bags act on this principle, and have been found useful in many nervous disorders. My own experience with these ice-bags has been limited chiefly to their application in cases of painful and scanty menstruation. In a certain class of cases the application, for half an hour at a time, of a bag of crushed ice to the region of the lumbar vertebræ and sacrum, has the effect of promoting the menstrual flow. Applied to the dorsal vertebræ, in an anæmic patient with cold extremities, the tendency of the ice-bag is to equalize the circulation and promote warmth throughout the whole body.

Friction with ice is employed in frost-bite. The late Dr. Peace, of Philadelphia, claimed to have had excellent results, in a cholera epidemic through which he passed in Europe, from vigorous friction of the limbs and body with lumps of ice. Where it is necessary to stimulate the nervous system, the alternate application to the spine of a flat brick of ice, and a very hot iron, protected by flannel, is sometimes very effectual.

I shall merely allude to the popular and time-honored belief in the styptic effects of cold; to the undoubted value of cold for the relief of pain in burns; and to the efficacy of ice-cold applications in the causalgia consequent on injuries of the nerves from gunshot wounds.

2. Of the manifold forms in which heat is employed as a remedy for pain and disease, I shall dwell on a few only of the most striking, at the risk, as in what I have said of cold, of telling a thrice-told tale. For the arrest of hemorrhage a high degree of heat has been long in vogue. The hot iron has held its place as a styptic probably for many centuries; and the cautery in some form is still constantly employed for the same purpose. The use of a moderate degree of heat for the arrest of a more general hemorrhage is of recent origin. To Dr. Emmet we are indebted for having demonstrated the hæmostatic properties of hot water. Where ice and cold water were formerly used, hot water is now found to answer a better purpose. In hemorrhage from

the uterus after a miscarriage, or after removal of a fibroid, or from any other cause, injections of very hot water at the same time arrest the hemorrhage and promote contraction of that organ. This is one of the many applications of heat where experience has placed its value beyond a doubt. For the arrest of hemorrhage from an exposed surface, towels dipped in very hot water and pressed firmly on the bleeding part for a few minutes will generally act much more promptly and permanently than cold water used in the same way. A stream of very hot water thrown with a syringe into any bleeding cavity, if there are no vessels of large size, will generally prevent further flow of blood. The remarkably good effect of hot water for this purpose, during and after operations, may be witnessed every day in many of our hospitals. One great advantage, if there were no other, in favor of the use of hot water for exposed surfaces, or for the uterine cavity, is that the process of boiling is purifying, and one of the most reliable means of destroying organic matter, bacteria, or other minute organisms which are believed to play so destructive a part in the human body. A higher temperature than that of boiling water has been proven to destroy some germs which escape simple boiling. For that reason I always, if practicable, employ for antiseptic solutions and for surgical purposes, water from the boiler of a steam-engine, which has usually been heated to about 250°.

The beneficial effects of vaginal injections of hot water are now generally appreciated, and form an important part of every-day gynecological treatment. So much depends upon the manner in which these injections are given, that I will venture to describe the method I consider the best: The patient should lie flat upon a bed or sofa, with the hips raised upon a broad bed-pan, capable of holding four or five quarts of water. With a Davidson's syringe, having a hard-rubber nozzle not perforated at the extremity, a stream of water as hot as can be borne, from 100° to 110°, should be gently thrown into the vagina for ten or fifteen minutes, or until three or four quarts of water have been used. The Davidson's syringe is better than the fountain; a bed-pan without pipes or openings or stop-cocks is better than a more complicated apparatus. It is difficult to keep the simplest vessel of the kind clean, and almost impossible some of the more complicated ones.

The effect of injections given thus night and morning is often quite surprising. The hot, swollen, congested mucous membrane or the vagina assumes a normal appearance, the offensive discharge ceases, the extreme tenderness disappears, the engorged cervix softens and diminishes in size, there is a marked general improvement without any medication whatever, and the patient has made a great step toward getting well. I make a rule of questioning a patient in detail as to whether she has taken her injection thoroughly. A pint or two of lukewarm water feebly thrown into the vagina, while the patient is sitting over a basin or other vessel, is often considered sufficient and expected to yield good results; but such a use of hot water for this purpose resembles the proper injection only "as the mist resembles the rain," and leads only to disappointment. In pelvic cellulitis the persistent use of hot water hastens the absorption of the plastic exudation and shortens the duration of the disease.

One of the applications of heat that may appear paradoxical, in view of what has been said of refrigeration in peritonitis, is the very common custom of covering the abdomen with hot poultices for the relief of the same disease. There is really nothing antagonistic in this. The object of the hot application is not to augment the heat of the parts, for there is already too much heat and congestion, but what the poultices and hot fomentations do is to stimulate the capillary circulation and that of the underlying lymphatics, and thus relieve the engorgement of organs more remote. Such applications are grateful to the patient, and that they often do much good there can be no doubt. I think that warm applications are useful, chiefly in the forms of peritonitis that develop rather insidiously, with pain over a large area. Where the disease is local, and especially of traumatic origin, I should prefer cooling measures from the beginning. There is nothing at all inconsistent in the use of both hot and cold applications at different stages of the same disease, and in the same case.

It would carry me beyond my limits even to enumerate all the familiar applications of heat in therapeutics. The value as a counter-irritant of Paquelin's cautery, used at a white heat and brushed lightly over the surface, is generally acknowledged. The application of heat over the region of the heart as a stimulant in threatening collapse, is

often found of value, and I have utilized the rubber coil for that purpose; the medicinal use of hot water as a beverage, reminds us that there is fashion in everything. More than one hundred and fifty years ago Le Sage, in his immortal "Dr. Sagrado," ridiculed the routine use of hot water and bleeding. The hot water has come back to us; the bleeding, as its adjunct, may follow.

In conclusion I would suggest that as we have in heat and cold agents powerful enough to destroy life, and under proper control capable of modifying all its functions, they should always be prescribed with a definite object and used in a definite manner. As their use is often intrusted to those who know nothing of the principles on which they act, and who are influenced by custom or prejudice, the physician should take suitable opportunities of imparting some general information to his patients as to the most rational means of employing remedies that, however or by whomsoever prescribed, will always be considered the property of the household, and within the province of domestic practice.—*Medical Record*.

HORSFORD'S ACID PHOSPHATE VS. DILUTE PHOSPHORIC ACID.

OCTOBER 1, 1881, I began a series of comparative studies of the effects of the Acid Phosphate (of Horsford) and the Acid Phosphoric of the U. S. P., which has been continued up to April 1, 1882, a period of six months. These studies were made on nineteen selected cases of inebriates and opium cases; patients who resemble each other very closely in natural vigor, degree of degeneration and disease. The plan pursued was to begin the use of the Acid (Horsford's) about two weeks after admission, when all the active symptoms had subsided, and continue its use for six weeks, then after an interval of one week, try the U. S. P. Acid for an equal length of time, in the meantime noting the pulse, weight and general condition of the patient every day. Reversing the order in other cases, that is—U. S. P. Acid first, then Horsford's Acid last. The difference in every case, after excluding all possible complications, was very prominent; consisting of increased nerve force, improved heart action lessened nutrient perversions, and a somewhat remarkable change in the *delusions* and *insomnia* present

in many cases. The memory and all the *mental* operations were visibly strengthened—in one case the patient could not write to his wife, or concentrate his mind on any topic, unless he used a small dose of Horsford's Acid; the other acid would not answer, and although he did not know the difference, it had not the same effect. My studies are not yet complete, because they do not cover a large enough field, or cases that are treated long enough. But I can say at this time, that I think the following facts are already indicated from this limited study:—

First—Horsford's Acid Phosphate is a remedy of great value in Inebriety and Opium taking, particularly in building up functional energy and brain force.

Second—It exceeds the U. S. P. Acid in every case where this may be indicated.

Third—As a nutritive medicine, so far it seems unequalled in its power of restoring the building up forces of the body.

I have gathered some data from which, with further study, I hope to reach some conclusions, which may be stated with great confidence.

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SOME CASES OF TYPHOID FEVER.

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THE typical case of typhoid of which Dr. Moor spoke in the last number of the Journal, is a fair sample of typhoid fever. It only, however, represents one condition, namely, that of a failure of the circulation and its concomitants. Such cases are very easy to treat. When I first began testing the efficacy of stimulants, I carried many cases of typhoid through with capsicum alone. It can be done in many cases, yet the result can be accomplished far better with auxiliaries.

It often happens that circumstances over which the physician has no control will render cases far more formidable than the typical case mentioned. Capsicum will not then meet all the indications to be fulfilled. To illustrate this I will detail cases from memory in which other and graver conditions were present.

Case 1. A lady forty years old, had been sick with fever about ten days. (This was early in my practice.) She had the usual symptoms of fever, except the languid feeling was worse than usual; she constantly complained of feeling so tired, drew long breaths, sighed heavily, was very restless but laid mostly on her back. I was giving lobelia, cypripedium, and an infusion of asclepias and ginger. One morning when I visited her I found her entirely insensible, could not speak, and it was with difficulty that I could get her to swallow; she was lying on her back with her head rolled over to one side; her head would fall over to one or the other side, unless supported by pillows; breathing was light, lips pale, pulse small and frequent, extremities cold, and finger nails were white. I was just from college, a newly fledged doctor, feeling that I knew all that anybody ever knew, and had a little of my own stock that was peculiar to me; but here was a case, the depths of which, with all my medical lore, I could not fathom. What does this mean? It was different from anything I had ever seen or read of; even Professor Carey, with all his care in teaching us how to treat typhoid, did not mention a case like this; but he did do one thing and a thousand times and more I have had occasion to be thankful to him for it, it was this: "The indication to be fulfilled in typhoid fever is stimulation." I sat there and I pondered; is this typhoid fever and have I brought this case to this condition by too much relaxation? The more I thought of it the more I concluded that this was the case, and I resolved to reverse my treatment. I made an infusion of capsicum, ginger, and serpentaria. This was given in tablespoonful doses every fifteen minutes; stimulating liniment along the spine and to the extremities, jugs of hot water at the feet and along the spine, a large mustard poultice was applied on the upper part of the shoulders, leptandrin, apocynin, and capsicum in powder were given every four hours. This was continued unceasingly for twenty-four hours, at which time she began to show some signs of reanimation, and in six hours more began to talk. This treatment was persevered in and she made a good recovery. I did not give this patient quinine, as I had already made up my mind that it was not a good agent to use. Professor Carey's relation of his own experience with it when he was given small doses of it for fever, led me to this conclusion. I did not take this lady's tem-

perature, as I had not then learned the use of the thermometer.

From this time I gave my patients capsicum until I began to think perhaps I was making a hobby of it, and concluded to try relaxation, and as many times had to resort to stimulation, and on one or two occasions came very nearly losing my patient by my relaxation. It would almost invariably be followed by bad symptoms, the restlessness and prostration would increase, and I so completely relaxed them that they could not even have the head raised from the pillow.

Case 2. A man thirty years old, was unable to turn in bed. On my first visit complained of a sinking feeling in the region of the stomach; was scarcely able to speak above a whisper; had been sick four days; did not complain of anything but this terrible weakness. I gave him capsicum without weight or measure. He slowly improved for about three weeks, when I concluded that his fever was entirely gone, but his pulse had gradually risen in frequency and force as well as volume, but he was weak and prostrate, could not turn himself over in bed. I was called in a hurry at night to see him. The messenger said he could not get his breath. On entering the house I found this to be the case and at first was disposed to blame the nurse for giving him too much to eat, but found this was not the case and was compelled to look in some other direction for the cause. His pulse was 120 per minute, full and strong; his heart's action was exaggerated but no irregularity; his respirations were about normal, full and free. I was once more nonplussed. What could be the cause of this? I sat there at least fifteen minutes, intently watching and thinking what I should do, when suddenly it appeared to me that his respirations were not in ratio with his circulation. But what had this to do in the case? I was again lost and almost despairing when it occurred to me again that this disproportion between the circulation and respiration would force the blood through the lungs so rapidly that the air could not properly relieve it of its accumulation of effete matter, nor impart to it the proper amount of oxygen, and this was why he suffered for breath. Again the query, what to give to correct it? Again puzzled; first the pulse was too rapid; this I knew was not due to fever, as he had none. What then? I certainly must be stimulating him

too much, but his strength must be kept up. But how to do it? I at once resolved to leave off the capsicum and give a tonic. I thought quinine the best tonic I could give, so I began by giving one grain every two hours. The next day I found him better and the pulse down to one hundred. I now added a small amount of capsicum and continued the quinine. He improved as fast as could be expected. Some may smile at my stupidity, but it is much easier to see an object after it is pointed out than it is to see it first, and often after a thing is recognized it seems so plain that we wonder that we did not see it sooner. Well, after this I was careful not to over-stimulate one set of organs at the expense of some other set.

Case 3. A lady apparently about forty-five years old; gave her stimulants and when needed, tonics; she recovered partly, so as to be able to be up, but did not gain strength. However, I dismissed her, and in four or five days was called again. Found her in a half unconscious state, very prostrate, pulse feeble and frequent, bowels constipated, urine scanty and high colored, breathing heavy and labored, tongue heavily coated and dark, sordes on teeth, would lie in an unconscious state unless disturbed, hard to awake, would hesitate in answering questions, only spoke once of her own will while I remained in the house, and that was to ask if there were no older physicians in the country than I was. Left her medicine and on my return the next day found that she had not retained any of the medicine in her stomach, and had been vomiting green looking matter that seemed like vitiated bile. She was very weak, her pulse was much weaker than on the previous day, she took no notice of anything, could not be aroused, breath exceedingly offensive and irregular. She was lying on her back and continually sliding toward the foot of the bed. She died the next day. I had a similar experience in another case shortly after that, in the case of a young man, and have also noticed in cases of fever treated by the regular doctors that those who survive their treatment complain of liver trouble for a long time, especially when they have been prevented from using calomel by the prejudice the people have against it.

Now the moral of this story. It has been my custom all my life to endeavor to find a theory for every phenomena that I did not understand. In these cases I asked myself,

Why did my patients die, and why did they seem so much alike? Why this vomiting of bile and why these liver derangements in the patients of the regulars? And then I remembered that in some other of my cases they had lingered along for some time in much such a condition as those who died, and finally would vomit freely of their own accord and then recover. The solution of this, to my mind, was that those who recovered had more vitality than those who died and threw off the difficulty by their own unaided powers and no thanks to me. It was evident to me that I was at fault in these cases, and I began looking over my treatment. It was also evident to me that the hepatic engorgement was the cause of death in those cases, and that I had not paid attention enough to the liver. There was a looseness of the bowels, and I only gave hepatics a few times during my treatment, when I thought the bowels were not free enough.

I remembered also, of treating a case once, a lady of a bilious temperament. She had a looseness of the bowels and was passing bilious matter. I treated her for nearly two weeks without any improvement. Another physician was called in and said I was not giving hepatics enough, and advised leptandrin in neut. cordial. I gave it and my patient made a rapid recovery. Now here were a lot of clinical facts and my tendency to theorize set me to work. I first theorized myself into the belief that those patients died because of my ignorance, and through this I had not attended to the liver as well as I should. I theorized that typhoid fever is self-limited, that it will not last always, that if the constitution is good and all other circumstances connected with the case favorable they will get well of themselves, but that in the course of the fever some or all of the organs may become deranged, and if they are vital organs and extensively deranged, they may cause death before the fever runs its course. Or if not entirely disabled, the patient may recover from the fever but not regain perfect health.

In all malarial climates typhoid patients suffer more or less from malarial influences, and with this engorgement of the liver, necessitating constant attention to this organ. In the case of my two patients mentioned, my neglect of this caused their death. It was hepatic engorgement that killed them and not the fever. From the moment that I

satisfied myself of this I resolved that I would never lose a patient from this cause again. It has ever since been my custom to give hepatics every six, twelve, or twenty-four hours, regardless of the condition of the bowels. The fact that the bowels move is no evidence that the liver is performing its functions properly; since the ulceration of the bowels causes a diarrhoea, the presence of undigested food may cause diarrhoea, the failure of the skin to perform its functions cause determination of those fluids to the bowels. All these and other conditions may cause the bowels to move and still the liver be dangerously inactive. My rule is to give hepatics every twenty-four hours at least, even if they are moving, and if they are inactive give sufficient to make them act at least once each day.

But my article is growing lengthy and I will stop with these cases, hoping to resume in the future.—*Physio-Medical Journal*.

TO FACILITATE PARTURITION BY HYGIENE.

How to render parturition easy and painless has for ages been a problem. From an old publication we quote the following: "In proportion as a woman subsists during pregnancy upon aliment which is free from earthy or bony matter, she will avoid pain and danger in delivery." A lady who had borne two children had suffered extremely during both labors, and for two or three months previous to each delivery she had swollen limbs, enlarged veins, and general bad health. During her third pregnancy she was affected in the same way, and it was doubted if she would be able to survive the third ordeal. When advanced full seven months she was induced to try the above. She lived upon fruits, mostly acid fruits, as they are more solvent to the basic matters, rice, sago, succulent vegetables, etc., taking but little bread, potatoes, or meat. In six weeks the swelling had entirely left her extremities, the veins were of natural size, and she became so buoyant and active that she could run up a flight of more than twenty stairs, a feat that she could scarcely perform when perfectly well and not pregnant. She continued living as above until her delivery, which was, as attested to by both accoucheur and midwife, unusually easy and rapid. In four days she was up and well, while after other pregnancies she did not leave the bed until the tenth day, after which time a tedious recovery

ensued. "The child, a boy, was finely proportioned and exceedingly soft, *his bones being all gristle*, but he became of large size and very graceful, athletic and strong as he grew up." Immediately after the birth the diet of the mother was changed to bread, milk, meat, and other articles rich in the phosphate of lime. Other cases are reported in which the same course was pursued, in each instance the reward being good health during pregnancy, rapid and easy delivery, prompt and complete recovery, and healthy children.

The above is the substance of a pamphlet published privately in England, in 1841. As assimilation, parturition, etc., are much the same now as then, it would seem that methods that were so successful then deserve some attention now. True, this was before the advent of anæsthesia; but anæsthetics remove the pain only, while all the other evils of a hard labor are present. With subinvolutions, inflammations, lacerations, fistulæ, etc., what wonder that motherhood is now the supreme dread of many women? All who have observed the course of the profession in recent years, are aware that the pressing need of modern medicine is to get rid of, not the gynæcologist, but the necessity for him. The above plan seems to do this. If delaying the process of ossification during foetal life, by the above regimen, will give the results that are claimed for it without unfavorably influencing the health of mother or child, it certainly deserves attention.

As to articles of food, lemons and other acid fruits should predominate, for the reason above mentioned. Sugar may be used *ad libitum*, as it contains no earthy matter. Rice, sago, tapioca, etc., which contain very little basic material, should be substituted for bread made from wheat, rye, Indian corn, etc. Natives of tropical countries, who live chiefly on rice, have easy labors. Fluids will not be in much demand by a system that is subsisting largely on fruits. Distilled water, or lemonade or tea made from it, should alone be used. It is said that a man drinking ordinary spring water will, in forty years, take into his system enough calcareous material to form a statue as large as his own body. Cabbage, turnips, parsnips, and fresh, succulent vegetables generally, may be taken with tolerable freedom. Potatoes, peas, beans, lentils and salt are to be avoided. Meats should be taken sparingly, and when taken at all,

young meats, as veal, lamb, etc., are preferable, as they contain less earthy substances than older meats. Fish is allowable with partial freedom. Coffee and spices should be avoided, while honey, molasses, butter, etc., may be taken freely.

Immediately after the labor this regimen should be reversed, in order to furnish as much ossifying material as possible in the mother's milk.—*Medical World*.

RESORCIN IN DISEASES OF THE INTESTINE.

RESORCIN, like nearly all the new remedies that are introduced, is highly praised by some, while others absolutely fail to find any good qualities in it. It has been employed in a good many diseases, and especially in diseases of the mucous membrane. Dr. Justus Andeer has largely contributed to the study of resorcin. The following is a brief report of his observations in diseases of the intestinal mucous membrane: "I was called in consultation to see a widow, fifty-nine years old, who had had medical advice from a number of physicians, at home and at Paris. From the symptoms—frequent vomiting of mucus just after meals, intolerance of food and drink, and the prompt rejection of the same immediately after ingestion—I made the diagnosis of cancer of the pyloric extremity of the stomach. The liver was somewhat atrophied, and from the symptoms the growth evidently made some pressure on the bile duct. The frequency of the attacks of colic and vomiting seemed to confirm my diagnosis, and I concluded to give the systematic administration of resorcin a trial. The stomach was washed out with a solution of resorcin regularly, which not only removed the yellow slimy mass, but at once lessened the excruciating pain from which the patient was suffering. Lungs and heart were perfectly healthy, and the intervals between the attacks of pain became longer. The patient had become very much emaciated, and was nourished per rectum; the food was well absorbed, and an increase in weight was recorded. Formerly she was quite restless, and slept but little, while under treatment she slept without interruption from six to eight hours. During a relapse, Professor Pohain, of Paris, was called in consultation, and verified my diagnosis, and recommended resorcin in increased doses, which acted very nicely for a time, when the patient

again got worse, and Billroth was called to operate, but found the woman moribund. In the course of half an hour after his arrival she died. He had concurred with the diagnosis of Andeer and Potain. On the following day Billroth made a post mortem section, and found dilatation of the stomach, and a circumscribed scar of an ulcer of the stomach, with a formation of a large number of gall-stones in the gall-bladder, which caused acute cirrhosis of the liver. The death of the woman was, therefore, unavoidable, since the duct from the gall-bladder had been completely closed, causing decomposition of the retained bile and consequent blood poisoning.

This case is not only interesting on account of the mistaken diagnosis and its severity, but also on account of the fact that pyloric dilatation may be caused by reflex paralysis of the bowels and abdominal organs; and, lastly, that even in this class of cases, resorcin seems to be quite valuable. Aside from the cases reported by Soldt-mann, Todenhofer, Bouchut, Cohn, and the most conscientious of all resorcin investigators, Guisepe Cattani, of micro-parasitic disease of the stomach, and treated with resorcin, I can also add a few very interesting cases. During the summer it happened that two families, consisting of sixteen members, consumed the flesh of a young beef that had died and was buried. The following is a brief account of the two 'house epidemics' of acute meat-poisoning as it began and its course: After the two families had ingested the meat, the one in a roasted and the other in a cooked form, they all took sick according to the amount of the infectious mass consumed. The symptoms were all alike, and differed but little in degree. The first symptoms were a marked depression, nausea, but no vomiting, distension of the abdomen, development of gases. On the second day colic set in, with diarrhoea and sleeplessness. On the third day, trembling of the whole body. On the fourth day all were confined to their beds, which they could not leave. At this time I saw the two families, and made a diagnosis of septic gastro-enteritis. They were all very much prostrated, as in typhus fever. Dizziness was complained of in some cases. There was sensitiveness to light, paralysis of accommodation, and in one or two instances paralysis of the ocular muscles, causing squint. All the symptoms of gastro-enteritis were present, and in addition the parents suffered from uncon-

sciousness and attacks of fainting during the absence of pain. The severer symptoms became more dangerous daily, and some of the patients already showed signs of collapse. Cold, clammy sweat covered the bodies of the torpid patients, the head was hot, the pupils dilated, and the eyes had a staring, vacant look. The heart's action was very weak, and the respiration was moaning. For the sake of comparison, one of the families was treated with resorcin, while the other was treated on general principles. Of the first family some of the members received $\frac{1}{2}$ liter of a 3% solution of resorcin four times a day, while others were given a 5% solution. This insured these patients a good night's rest, and they left the bed on the following morning. Their recovery was quite evident.

At my last visit the patients were happy, and stated that they were improving rapidly. In the second family, excluded from the resorcin treatment, recovery was more tedious, requiring two to three weeks, and then some of them remained quite weak for weeks. In the first family resorcin showed itself as a good anti-emetic, and while the second family recovered without the loss of life, yet the difference was so marked in favor of the resorcin that it is by far the best remedy that I have ever employed. My physiological experiments with this drug on the bowels, from the pylorus to the rectum, have shown that the mucous membrane, like the mucous membrane of the throat and vagina, possesses marked properties of absorption for this drug. In animals resorcinism can easily be set up by injecting a 2% or 4% solution. In septic infection, infiltration of the assimilating intestinal walls, as it is found in different forms of catarrh, and ulceration, dysentery, typhus, cholera, septic enteritis, etc., the proportional resorptive properties are somewhat diminished as in the above cases, in which the tolerance for resorcin was quite marked.—*Therapeutic Gazette*.

PROOF OF DEATH.

IF most people are afraid of anything, it is of being buried alive. That cases do happen where it is very difficult even for the experienced physician to determine whether a person is really or but apparently dead, without his having recourse to means which, while they would at once settle the dispute, would place life, if it really still existed, in

jeopardy, may be judged by the fact that the French Academy some ten or fifteen years ago offered a prize of forty thousand francs for the discovery of some means by which even the inexperienced may at once determine whether in a given case death had ensued or not. A physician obtained the prize. He had discovered the following well-known phenomenon: If the hand of the suspected person is held toward the candle or other artificial light, with the fingers stretched, and one touching the other, and one looks through the spaces between the fingers toward the light, there appears a scarlet red color where the fingers touch each other, due to the still circulating fluid blood, as it shows itself through transparent, not yet congested tissues; but when life is extinct, this phenomenon at once ceases. The most extensive and thorough trials established the truth of this observation, and the prize was awarded to its discoverer.

When electricity or rather its application in medicine, came in vogue, it was first thought that it would be a means of deciding whether a person was dead or not. This assumption was based upon the fact of electro-muscular contraction. But experiments soon proved that for one to three hours after death has taken place, and in some cases, where rigidity but slowly ensues, for a still longer period, the muscles of a dead individual respond as well to the electric stimulus as those of the living being.

Dr. Max Buch now publishes in the *Centril. f. Neuenhklkd*, 2, '84, a modification of the above, and what promises to be a reliable and scientific proof of death, for thus far no scientific test existed.

While in the living the temperature of the surface over a muscle in the act of, or immediately after contraction, decidedly increases, this increase is utterly wanting in the dead, and even during the time (half to three hours) in which, after death, the muscle still retains its contractility. Having placed, therefore, a surface thermometer on the skin, and having waited until the temperature has continued at one and the same height for about five minutes, the muscle just below the bulb of the thermometer is made to contract by electric irritation. If, then, the column of mercury does not rapidly ascend, we have the most definite and the scientific proof that life is extinct in the body; while if the temperature increases, it is just as certain that there is still life. Under normal condition, the skin for a considerable

distance increases by several degrees in temperature, if in the muscle below is caused a powerful electrical contraction; and this phenomenon is also observed in paralyzed limbs; while in the dead nerves, there the production of heat, as induced by motion, has forever ceased.

The method, it is true, has not yet been tested in a cataleptic case resembling death, but it is to be supposed that as long as there is the faintest trace of circulation, so long will increased activity at any part of the body produce a corresponding increase of heat. Apropos, this observation leads us to another interesting fact. It is well known that all over in nature rapid motion calls forth heat, and this is the more apparent the more friction attends the motion. Two stones or two metals rubbed together will soon induce warmth, and the Indians are said to be able to start a fire by the violent friction of two pieces of wood with each other. It is said that no law of nature knows an exception. That may be true, but a dead body surely makes in so far an exception as no amount of motion or friction will elicit the least warmth in the decomposing tissue. But that some mysterious process of heat regulation still is active within the dead body, may be seen from the fact that no matter what the temperature of the surrounding atmosphere the surface of the body will go on decreasing its own temperature until the state of rigidity is ended and active decomposition commences.—*Phila. Med. and Surg. Reporter.*

CHOLERA AND ITS BACILLUS.

DR. R. KOCH recently delivered an address before the Imperial German Board of Health (*Deutsche Medicinische Wochenschrift*), in which he gives a summary of the results of his laborious researches in Egypt, India, and France into the etiology of cholera. The only lesions which could be considered as constant and peculiar were the modifications in the small intestine. There were some cases in which the lower portion of the small intestine had dark brownish-red coloration, which was most intense just above the ileo-cæcal valve, and there were some points of superficial hemorrhage, and necrotic spots covered with false membrane. In such the contents of the intestine were dark-colored, bloody, and foul-smelling. In others the redness was less intense, and perhaps existed only in patches, or the redness was confined

to Peyer's patches and the borders of the follicles, this being a very characteristic appearance. In a few cases, however, the mucous membrane was very little changed, being only a little swollen and less transparent in the surface-layers, the solitary follicles and plaques being more prominent; the whole mucous membrane was pink, but in these cases there were no hemorrhages. Examined microscopically, corresponding with the redness was found an invasion of bacteria of a peculiar kind, the so-called comma-bacillus associated with the ordinary forms of bacteria in the necrotic and diphtheritic changes of the intestine. These comma-bacilli were found constantly present in the intestinal tract and in the discharges during the attack of cholera. In the reporter's opinion, they were characteristic in appearance, and were present in sufficient numbers to cause the disease. Cultivations on gelatin show this organism to be different from all other bacteria as well by its mode of growth as its microscopical appearances. Thus far no permanent sporule-form has been found; the bacillus itself perishes as soon as it becomes dry. Experiments upon the lower animals have failed both with the cholera excreta and the cultivations, as animals do not seem susceptible to the disease, so that, until some other subject is found to which cholera is obnoxious, the conclusive proof of the identity of the comma-bacilli with the cholera germ will be wanting; but the results thus far are suggestive and valuable. In cases of suspected cholera the presence of the peculiar bacillus in the discharges would at least furnish some evidence of importance to health officers, and suggest the institution of early measures to prevent the spread of the disease.—*Medical Times*.

NEW TREATMENT OF STRANGULATED HÆMORRHOIDS.

M. CHARLES MONOD has written to the *Gazette des Hôpitaux* an article on a new treatment of strangulated hæmorrhoids, which he has put in practice with the greatest success. This treatment consists in forcibly dilating the anus, as in case of fissure. M. Verneuil had already recommended this method for the cure of simple piles, and has been followed by most of the young surgeons, who have entirely abandoned every other treatment. To effect the dilatation M. Verneuil employed specula of different dimen-

sions, and only in the case, as has been just stated, of the ordinary condition of hæmorrhoids. On the contrary, he says that "when the piles are the seat of sphacelus he always waited until the complication disappeared." M. Monod, who has imitated M. Verneuil with the best results in those simple cases, goes still farther, and instead of regarding strangulation as a counter-indication to the operation, considers that this fact renders it the more necessary. He cites a case in point. He was called by one of his *confreres* to see a gentleman who had been suffering excruciating agony for two days from strangulated piles, and on whom ice fomentations, narcotics *intus* and *extra* were tried without effect. Local examination showed no more than is ordinary in such cases—a ring of tumefied external hæmorrhoids, with a dark spot in the center, announcing the commencement of sphacelus. The least touch was painful, and the patient demanded relief at any price. Partisan of the treatment of hæmorrhoids in general by debilitation, he thought that he would be doing right in employing it in the present case, knowing that by suppressing the general action of the sphincter the pain would cease. Accordingly, the patient was put under the influence of chloroform, and the hæmorrhoidal tumors reduced, and M. Monod largely dilated the anus with his fingers. A few minutes afterward the patient awoke free from all pain, and in a few days he had the satisfaction of not only feeling that the strangulation had entirely disappeared, but that he was forever quit of his piles. This case of Monod's proves that the hand dilates just as well as the speculum, and consequently the operation is reduced to its simplest expression.—*Medical Age*.